

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-36. (canceled)

37. (previously presented) A method for identifying at least one ~~or more~~ micro-organism and/or micro-organism species in a sample, and for measuring the portion of the identified said at least one micro-organism and/or micro-organism species from a the sample, ~~characterized in that~~ said method comprising:

a) binding a first fluorescent agent that absorbs light in a first wavelength area to a structure individualizing at least one micro-organism species or group in said sample and enabling identification ~~thereof a first fluorescent agent that absorbs light in a first wavelength area,~~

b) binding a second fluorescent agent that absorbs light in a second wavelength area to a structure characteristic of all micro organisms ~~a second fluorescent agent that absorbs light in a second wavelength area,~~

c) subjecting the sample to flow,

d) exciting the ~~aforementioned~~ first fluorescent agent in the ~~aforementioned~~ flow with a monochromatic light disposed in the first wavelength area,

e) exciting the ~~aforementioned~~ second fluorescent agent in the ~~aforementioned~~ flow with a monochromatic light disposed in the second wavelength area, and

f) identifying ~~the~~ a target ~~micro-organism~~ micro-organism by analyzing ~~the~~ fluorescence of the first and second fluorescent agents bound to ~~the~~ particles of the sample,

~~and in that~~ wherein the first and second fluorescent agents and the wavelength areas of the monochromatic light are chosen in such a manner that the difference in intensities of the mean fluorescences of the first and second fluorescent agents is at least ~~about~~ double on a logarithmic scale.

38. (currently amended) The method according to claim 37, ~~characterised in that the method~~ which further comprises a step at which the portion(s) of the identified target micro-organism(s) is/are calculated from the total amount of the sample.

39. (currently amended) The method according to claim 37, ~~characterised in that~~ wherein a measurable difference in intensities between the fluorescences of the first and second fluorescent agents is achieved in the first wavelength area.

40. (currently amended) The method according to ~~of~~ claim 37, ~~characterised in that~~wherein the sample is introduced into a flow cytometer.

41. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the first fluorescent agent is attached to ~~the~~ probes that are bound to the structure individualizing said at least one micro-organism species or group in the sample and enabling ~~the~~identification thereof.

42. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the structure individualizing said at least one micro-organism species or group and enabling the identification thereof is a ribosomal RNA molecule.

43. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the structure characteristic of all micro-organisms is DNA.

44. (currently amended) The method according to claim 37, ~~characterised in that~~wherein a threshold value is set for each micro-organism for each parameter specifically, and the micro-organisms are classified based on their threshold values.

45. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the first and/or second fluorescent agent is a fluorochrome.

46. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the micro-organism is a bacterium and/or a bacterial species.

47. (currently amended) The method according to claim 46, ~~characterised in that the aforementioned~~said ribosomal RNA molecules ~~are~~ molecules is chosen from a group consisting of 16S ribosomal RNA molecules and 23S ribosomal RNA molecules.

48. (currently amended) The method according to claim 37, ~~characterised in that the~~wherein light scattering from the particles of the sample is detected.

49. (currently amended) The method according to claim 37, ~~characterised in that~~further comprising separating micro particles ~~are further separated from~~ the sample based on their scattering and/or fluorescence properties.

50. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the first wavelength area is 600-650 nm.

51. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the second wavelength area is 350-600 nm.

52. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the monochromatic lights disposed in the first and second wavelength area are formed by one light source.

53. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the monochromatic lights disposed in the ~~aforementioned~~ first and second wavelength area are formed by at least two light sources.

54. (currently amended) The method according to claim 53, ~~characterised in that~~wherein at least two of the ~~aforementioned~~ at least two light sources are disposed at a distance from each other, and ~~in that in the method, further~~wherein signal delay equipment is used to delay the measuring signals being created by means of the first and optionally the subsequent light sources.

55. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the sample is ~~a sample from a mammal's organism fluid~~from a mammal.

56. (currently amended) The method according to claim 55, ~~characterised in that the sample is a sample originating from a mammal~~ wherein the sample is from the digestive system of the mammal.

57. (currently amended) The method according to claim 37, ~~characterised in that~~ wherein the sample is a waste water sample.

58-66. (canceled)

67. (canceled)

68. (currently amended) The ~~use according to claim 67,~~ method according to claim 37, wherein the micro-organism is a probiotic bacterial strain.

69-70. (canceled)

71. (new) A method for identifying at least one micro-organism and/or micro-organism species in a sample, and for measuring the portion of the identified said at least one micro-organism and/or micro-organism species from the sample, said method comprising:

a) binding a first fluorescent agent that absorbs light in a first wavelength area to a structure individualizing at least one micro-organism species or group in said sample and enabling identification thereof,

b) binding a second fluorescent agent that absorbs light in a second wavelength area to a structure characteristic of all micro organisms,

c) subjecting the sample to flow,

d) exciting the first fluorescent agent in the flow with a monochromatic light disposed in the first wavelength area,

e) exciting the second fluorescent agent in the flow with a monochromatic light disposed in the second wavelength area,

f) identifying a target micro-organism by analyzing fluorescence of the first and second fluorescent agents bound to particles of the sample, and

g) separating micro particles from the sample based on their scattering and/or fluorescence properties,

wherein the first and second fluorescent agents and the wavelength areas of the monochromatic light are chosen in such a manner that the difference in intensities of the mean fluorescences of the first and second fluorescent agents is at least double on a logarithmic scale, and

said sample contains numerous species of micro-organisms.